## REMARKS

Claims 1-35 remain pending in the application. Reconsideration is respectfully requested in light of the following remarks.

**Section 102(e) Rejection:**

The Examiner rejected claims 1, 4, 12, 15, 20, 24, 25, 28, 32 and 33 under 35 U.S.C. § 102(e) as being anticipated by Saulpaugh et al. (U.S. Publication 2004/0122903) (hereinafter "Saulpaugh"). Applicants respectfully traverse this rejection for at least the following reasons.

Regarding claim 1, Saulpaugh does not disclose the elements as recited in the claim. Saulpaugh is directed at a system and method for location-independent message addressing for a computer network. In Saulpaugh's system, a plurality of nodes connected to a network may include a first node which is operable to send a message addressed using a "role". The role may be associated with one or more other nodes coupled to the network. The message may be sent to each of the one or more nodes with which the role is associated without specifying locations of the one or more nodes (i.e., by simply specifying the role). (Saulpaugh, Abstract). Saulpaugh's "role" is defined as a "location-independent address for a computer network" (paragraph [0068]). A role may be initially associated with a first node, and the role may later be associated with another node in addition to the first node. If a message is then addressed to the role, the message may be sent to the additional node as well as the first node using the name of the role. (paragraph [0009]). Saulpaugh discloses that roles may be "published" (paragraphs [0078]-[0089]), and that a client application (on a node) may be able to "request a role". To request a role, a node sends a message to the current role requesting to "become that role". (Paragraph [0082]).

In contrast to Saulpaugh, which is directed at "location-independent message addressing for a computer network" using roles (location-independent addresses for a

computer network), claim 1 of the instant application is directed at caching, advertising and distributing content on a network. Saulpaugh does not disclose elements as recited in amended claim 1.

More specifically, Saulpaugh does not disclose a publisher peer node configured to *publish one or more advertisements on the network, wherein each advertisement corresponds to one of the one or more contents cached on the peer node*, as is recited in amended claim 1. Nor does Saulpaugh disclose *wherein each advertisement includes information for requesting a corresponding content*, as is recited in amended claim 1.

Furthermore, Saulpaugh does not disclose *at least a subset of the plurality of peer nodes each configured to discover published advertisements on the network and request content corresponding to the discovered advertisements in accordance with the information included in the advertisements*.

Furthermore, Saulpaugh does not disclose wherein the requesting peer node is configured to *cache the content and become a content publisher peer node for the content corresponding to the discovered advertisement*.

In the Final Office Action mailed September 26, 2007, in response to the above arguments, the Examiner refers to FIG. 2 and paragraphs [0007] and [0056] of Saulpaugh. The Examiner appears to be arguing that, because Saulpaugh discloses in paragraph [0056] "in various embodiments any of various kinds of client application software 128 may utilize the T&R layer software 130 to send and receive messages for any desired purpose," and that "given the broadest reasonable interpretation, content can mean application data," that therefore "Saulpaugh discloses a role is a unique identifier used to identify application data or resources – which can be, e.g., a file that needs to be shared using a P2P file sharing application." Applicants respectfully traverse this argument. **Contrary to the Examiner's assertion, even under the Examiner's reasoning, Saulpaugh does not teach or suggest that "a role is a unique identifier used to identify application data or resources - which can be, e.g., a file that needs to**

**be shared using a P2P file sharing application."** Saulpaugh clearly does not disclose or suggest that roles are or may be used to "identify application data or resources – which can be, e.g., a file that needs to be shared." Instead, Saulpaugh specifically discloses that "roles" are location-independent addresses used to identify sets of nodes on a network in Saulpaugh's messaging scheme, so that a node can send a message to a set of nodes using the "role" as an address instead of addressing each node individually or broadcasting to all nodes on the network. This is made clear in paragraph [0008] (emphasis added):

> The plurality of nodes may include a first node which is operable to send a message addressed using a "role". The role may be associated with one or more other nodes coupled to the network. The message may be sent to each of the one or more nodes with which the role is associated without specifying locations of the one or more nodes. For example, the role may have an associated name, and the message may be addressed using the role name (and possibly other information, such as a tree or subset of nodes with which the role is associated).

Note that substituting "application data or resources" or "a file" in the above for "role" or "node" would make no sense. "Application data or resources" or "files", or content, do not send messages to other "application data or resources" "files", or content on the network. Nodes send and receive messages; not content. Nodes, or roles, as used by Saulpaugh are not content and cannot be content under any reasonable interpretation of Saulpaugh.

Furthermore, simply because Saulpaugh suggests that "in various embodiments any of various kinds of client application software 128 may utilize the T&R layer software 130 to send and receive messages for any desired purpose" is clearly not enough to maintain the assertion that Saulpaugh discloses what is specifically recited in claim 1. Saulpaugh does not disclose or suggest the system as specifically recited in claim 1 of the instant application.

Furthermore, the Examiner asserts "Saulpaugh discloses a role is a unique identifier used to identify application data or resources – which can be, e.g., a file that needs to be shared using a P2P file sharing application ([0068], client application software creates roles, [0069], a role address is associated with an application and a

protocol)." In [0068], Saulpaugh discloses "…message addressing is based on the concept of a "role". As used herein, a role may refer to a location-independent address for a computer network. The T&R layer may include an interface allowing client application software to create a role on one or more nodes on a tree." Saulpaugh is simply disclosing that client applications can create roles. **Again, Saulpaugh explicitly teaches and requires that roles are location-independent addresses for nodes, not for content.**

In [0069], Saulpaugh discloses (emphasis added):

> …a message address may also include information identifying a protocol ID. The protocol ID may be associated with a client application that utilizes the T&R layer. Multiple protocols may utilize the same tree. Thus, each message may be sent on a particular tree and, more particularly, to a particular set of nodes on the tree, i.e., the nodes having the specified role. As the message arrives to each node on the specified tree and having the specified role, the protocol ID may be used to determine which protocol on the node or which portion of client application **software** receives the message.

Nowhere in [0068]-[0069] does Saulpaugh teach or suggest the notion "a role is a unique identifier used to identify application data or resources – which can be, e.g., a file." In [0069], Saulpaugh discloses (again) that the "role" is used to send message to particular sets of nodes, and further discloses that the protocol ID may be associated with a client application on a node and may be used to determine which protocol on the node or which portion of client application **software** receives the message. Again, Saulpaugh does not teach or suggest that messages are sent to content, application data or resources; Saulpaugh teaches messages are sent to nodes according to roles assigned to the nodes and possibly to client application software according to a protocol ID.

The Examiner goes on to assert "A peer node can publish a role (e.g., a file segment it cached for a file sharing application, [0084]-[0089], [0097], e.g. P2P file sharing protocol and application)." **Again, contrary to the Examiner's assertion, Saulpaugh does not teach or suggest a "role" is a "file segment [a node] cached for a file sharing application."** Indeed, the very notion that a "role" in Saulpaugh could be a

"file segment" is **contrary to Saulpaugh's actual teaching**. Saulpaugh teaches that a "role" is associated with a node, and a node is clearly not a "file segment", nor could it be nor would it make sense for a role to be a file segment in Saulpaugh's messaging system. File segments do not send messages to other file segments on a network, nor do file segments receive messages from other file segments on a network.

The Examiner goes on to assert "In response to role publishing or advertisement, a requesting node (one that receives advertisements) may send a request for a role ([0082]) and may receive responses from advertising nodes that have the roles." Paragraph [0082] states that a client application may be able to "request a role (sends a message to the current role, requesting to become that role)." Saulpaugh is referring to a client application requesting a role, and in [0082] it would make no sense to substitute something like a "file" or a "file segment" as the requestor (as the node or client application) or as the role. A client application requesting a role, as disclosed in [0082], does not in any way teach or suggest what the Examiner is asserting – that a "role" may be a "file segment" or some other content. A role is simply a location-independent addressing scheme which may be used by client applications to assume the role of a "node" and to send messages to other nodes and receive messages from other nodes using that role as a location-independent address.

The Examiner goes on to assert "the response may include data ([0063]) – reading on 'wherein each advertisement corresponds to one of the one or more contents cached on the peer node', 'request content corresponding to the discovered advertisements in accordance with the information included in the advertisements', and 'cache the content and become a content publisher peer node for the content corresponding to the discovered advertisement." **Applicants fail to see how "the concept of a message response including data may be integrated in a sender to receiver back to sender protocol provided by the T&R layer" could possibly "read on" the specific limitations as recited in claim 1.** Saulpaugh noting that message responses in the T&R layer may include "data" is clearly insufficient to teach the specific limitations in claim 1 that the Examiner asserts Saulpaugh "reads upon."

Thus, for at least the reasons presented above, the rejection of claim 1 is not supported by the cited art and removal thereof is respectfully requested.

Regarding claim 12, Saulpaugh does not disclose *a plurality of content publisher peer nodes coupled to the network, wherein each of the plurality of content publisher peer nodes is configured to cache **user-requestable contents** and to publish the cached contents on the network.* Saulpaugh is directed at "location-independent message addressing for a computer network" using roles (location-independent addresses for a computer network). In contrast, claim 12 of the instant application is directed at caching, publishing, and distributing **user-requestable contents** on a network. Furthermore, Saulpaugh does not disclose a *content consumer peer node configured to send a request for a particular content on the network in response to a user request for the particular content*. Furthermore, Saulpaugh does not disclose the content consumer peer node *receiving the particular content from a logically nearest content publisher peer node of a plurality of content publisher peer nodes on the network, wherein a logically nearest peer node is a peer node to which communications over the network take the least time.*

In the Final Office Action mailed September 26, 2007, in response to the above, the Examiner simply declares the arguments "moot in view of the rationale [of the Examiner's response to Applicant's arguments in regard to claim 1]." Applicants refer to the Applicants' traversal of the Examiner's response given above. Saulpaugh clearly does not teach or suggest what the Examiner asserts.

The Examiner further asserts that Saulpaugh "discloses requesting a role through a client application [0082]." Paragraph [0082] actually states that a client application may "request a role (sends a message to the current role, requesting to become that role)." The paragraph does not state "requesting a role through a client application"; it states that a client application may request to become a role. In other words, a client application may request to become or assume a "role" so that the application can send and receive messages according to the location-independent addressing scheme using roles as taught

by Saulpaugh. **As noted above, Saulpaugh clearly does not teach that a role is content, or that a role could be content. Indeed, as noted above, it would not make sense for a "role" to be "content" in Saulpaugh's system.** Again, a role is a location-independent address for sending messages to nodes, and nodes are clearly not nor could they be content in Saulpaugh's messaging system. Paragraph [0082] makes that even more clear; a client application requests to become a role; clearly, Saulpaugh is not referring to content as a "role".

Thus, for at least the reasons presented above, the rejection of claim 12 is not supported by the cited art and removal thereof is respectfully requested.

Regarding claim 20, Saulpaugh does not disclose *a content publisher peer node caching user-requestable contents and publishing the cached user-requestable contents for access by other peer nodes on a network.* Saulpaugh is directed at "location-independent message addressing for a computer network" using roles (location-independent addresses for a computer network). In contrast, claim 20 of the instant application is directed at caching, publishing, and distributing **user-requestable contents** on a network. Furthermore, Saulpaugh does not disclose one of the other peer nodes *requesting a particular content on the network in response to a user request for the particular content, receiving the particular content from the content publisher peer node, caching the received particular content, and publishing the received particular content for access by the other peer nodes on the network.*

In the Final Office Action mailed September 26, 2007, in response to the above, the Examiner simply declares the arguments "moot in view of the rationale [of the Examiner's response to Applicant's arguments in regard to claim 1]." Applicants refer to the Applicants' traversal of the Examiner's response given above. Saulpaugh clearly does not teach or suggest what the Examiner asserts.

The Examiner further asserts that Saulpaugh "discloses requesting a role through a client application [0082]." Paragraph [0082] actually states that a client application

may "request a role (sends a message to the current role, requesting to become that role)." The paragraph does not state "requesting a role through a client application"; it states that a client application may request to become a role. In other words, a client application may request to become or assume a "role" so that the application can send and receive messages according to the location-independent addressing scheme using roles as taught by Saulpaugh. As noted above, Saulpaugh clearly does not teach that a role is content, or that a role could be content. Indeed, as noted above, it would not make sense for a "role" to be "content" in Saulpaugh's system. Again, a role is a location-independent address for sending messages to nodes, and nodes are clearly not nor could they be content in Saulpaugh's messaging system. Paragraph [0082] makes that even more clear; a client application requests to become a role. Clearly, Saulpaugh is not referring to content as a "role".

Thus, for at least the reasons presented above, the rejection of claim 20 is not supported by the cited art and removal thereof is respectfully requested. Similar remarks as those above regarding claim 20 apply equally to claim 28.

**Section 103(a) Rejections:**

The Examiner rejected claims 2, 3, 5, 13, 14, 21-23 and 29-31 under 35 U.S.C. § 103(a) as being unpatentable over Saulpaugh in view of in view of Marmor et al. (U.S. Publication 2002/0062310) (hereinafter "Marmor") and Leber et al. (U.S. Publication 2003/0233455) (hereinafter "Leber"). Applicants respectfully traverse this rejection for at least the reasons stated above in regard to Saulpaugh. As the rejection of the independent claims have been shown to be unsupported by the cited art, no further comments in regard to these claims is necessary at this time.

The Examiner rejected claims 8, 9, 18 and 19 as being unpatentable over Saulpaugh in view of Leber. Applicants respectfully traverse this rejection for at least the following reasons.

In regard to claim 8, the Saulpaugh reference is directed at "location-independent message addressing for a computer network" using roles (location-independent addresses for a computer network). In contrast, claim 8 of the instant application is directed at caching, publishing, and distributing user-requestable **contents** on a network. As noted above in reference to claims 1, 12, and 20, contrary to the Examiner's assertion, Saulpaugh does not teach or suggest that "roles" are or could be content or "application data." According to Saulpaugh, roles (location-independent addresses) may be requested by client applications. Paragraph [0082] actually states that a client application may "request a role (sends a message to the current role, requesting to become that role)." Thus, a client application can "become" or assume a role, and may receive messages from other "nodes" via Saulpaugh's location-independent addressing scheme that uses "roles". Saulpaugh does not teach that "content" or "application data" can "become a role." Saulpaugh does not teach or suggest what the Examiner asserts in regard to claim 8.

The Examiner asserts that "Leber discloses [receive the particular content from a logically nearest content publisher peer node of the plurality of content publisher peer nodes on the network, wherein a logically nearest peer node is a peer node to which communications over the network take the least time].", and cites Leber's abstract, [0005], and [0045] last 5 lines. Applicants note that the Examiner's citations, except for the Abstract, appear to be incorrect; paragraph [0005] simply defines a "computer apparatus" and paragraph [0045] contains a single sentence that states "FIG. 1a is a schematic block diagram depicting the computer program modules of the File Retrieval Software Application." Examiner asserts "a peer node probes for actual QoS (delay, bandwidth, packet loss) to each peer that advertises the role and selects peers with best QoS qualifications for setting up service." What Leber discloses is outlined in the Abstract, cited by the Examiner (emphasis added):

> The method involves sending a request for a file to the server computer; receiving back from the server an authentication code and a list of peer client computers that have the requested file or part of it; sending a request for the file to a subset of peer clients that yield the fastest download rate; receiving file data back from this subset of peer clients; reassembling the requested file using data sent by the peer clients; and checking the

integrity and completeness of the reconstructed file by comparing a computed checksum of said reconstructed file with the authentication code.

Leber is directed at a "distributed file sharing system for fast transfer of data [received] from multiple computer data storage mediums connected by peer-to-peer connections through a computer network" (*see, e.g.*, [0030]).

Furthermore, Leber teaches, in paragraph [0033], that "the present invention eliminates the requirement for a user to download an entire file from a single source and instead provides a system and a method for the transfer of multiple parts of a file from a plurality of peer client computers, that can be reassembled into one file and checked for completeness and integrity by a predetermined authentication procedure." Thus, Leber appears to teach against what is recited in claim 8: "sending a request for a particular content on the network in response to a user request for the particular content; and receiving the particular content from a logically nearest content publisher peer node of the plurality of content publisher peer nodes on the network." In Leber's system, a requested particular "content" would not be received from a logically nearest peer node; Leber teaches that a file or parts of a file would be received from a plurality of peer client computers and reassembled on the receiving node.

In addition, the Examiner's reasoning to combine Saulpaugh and Leber does not appear to be a reason that would be applicable to Saulpaugh's system for location-independent message addressing for a computer network. Saulpaugh is not directed at "providing peer-to-peer services", but is instead directed at location-independent message addressing for a computer network. Nothing in Saulpaugh suggests that there would be any advantage to finding a "peer with best QoS qualifications" from which to receive a "role", which is simply a location-independent address and not a file. It is not at all obvious as to how Leber's "distributed file sharing system for fast transfer of data from multiple computer data storage mediums connected by peer-to-peer connections through a computer network" would be applicable in Saulpaugh's system. Saulpaugh's "roles" are clearly not received in pieces from multiple data storage mediums and reconstructed on

the requesting node, nor would it make any sense to apply Leber's system to Saulpaugh. Furthermore, combining the references, even if possible, would not produce anything like what is recited in claim 8. Moreover, the Examiner's reason is merely conclusory.

Thus, for at least the reasons presented above, the rejection of claim 8 is not supported by the cited art and removal thereof is respectfully requested. Similar remarks as those above regarding claim 8 apply equally to claim 18.

The Examiner rejected claims 6, 7, 16, 17, 26, 27, 34 and 35 as being unpatentable over Saulpaugh in view of Lehikoinen et al. (U.S. Publication 2004/0260701) (hereinafter "Lehikoinen"). Applicants respectfully traverse this rejection for at least the reasons stated above in regard to Saulpaugh. As the rejection of the independent claims have been shown to be unsupported by the cited art, no further comments in regard to these claims is necessary at this time.

The Examiner rejected claims 10 and 11 as being unpatentable over Saulpaugh and Leber and further in view of Lehikoinen. Applicants respectfully traverse this rejection for at least the reasons stated above in regard to Saulpaugh. As the rejection of the independent claims have been shown to be unsupported by the cited art, no further comments in regard to these claims is necessary at this time.

In regard to the § 102(e) and § 103(a) rejections, Applicants also assert that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the rejections have been shown to be unsupported for the independent claims, a further discussion of the dependent claims is not necessary at this time.

## CONCLUSION

Applicants submit the application is in condition for allowance, and notice to that effect is respectfully requested.

If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C. Deposit Account No. 501505/5681-08300/RCK.

Respectfully submitted,

/Robert C. Kowert/
Robert C. Kowert, Reg. #39,255
Attorney for Applicants

Meyertons, Hood, Kivlin, Kowert, & Goetzel, P.C.
P.O. Box 398
Austin, TX 78767-0398
Phone: (512) 853-8850

Date: November 26, 2007